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Location ID: <u>BLM-10-517</u> Field Representative(s): <u>Cooper/Kaszuba</u> Northing: 223050.75 Easting: <u>402963.97</u> Date Started: 9 February 1988 Date Completed: 3 March 1988 Drilling Method: <u>Air-foam rotary</u> Drilling Contractor: <u>Larjon</u> Driller: Jim Gower Total Depth Borehole: <u>568'</u> Total Depth Well Casing: <u>532.2'</u> Total Depth Surface Casing: 89' Diameter Well Casing: <u>4"</u> Diameter Surface Casing: <u>10"</u> Length of Bottom Blank: 5.3' Type of Screen: <u>extra strength</u> 0.02 slot Screen Interval: <u>517'</u> to <u>527'</u> Water First Detected: ~ 534' Water Level Open Borehole: 463' (G.L.) Water Level Cased Borehole: 463.5' Quik-Foam Use: Estimated Water Use: 7800 gallons introduced while drilling 7000 pumped out of mudpit ~ 800 gallons introduced to formation

<u>Well Casing</u>:

4in x 3ft SCD 40 PVC:		stock SS centralizers:
4in x 5ft SCD 40 PVC:		custom SS centralizers: 1
4in x 10ft SCD 40 PVC:		4"x2' SS locking riser: 1
4in x 20ft SCD 40 PVC:		4" SS locking cap: 1
Total SCD 40 PVC pipe:	ft	4" SS female cap: 1
4in x 3ft SCD 5 SS pipe: 1 4in x 5ft SCD 5 SS pipe: 1 4in x 10ft SCD 5 SS pipe: 4in x 20ft SCD 5 SS pipe: 20 Total SCD 5 SS pipe: 408	ft	<pre>4in x 5ft SCD 10 SS pipe: 1 4in x 10ft SCD 10 SS pipe: 1 4in x 20ft SCD 10 SS pipe: 5</pre>

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Well Completion:

 100# bags 16/40 sand:
 20 bags

 100# bags 10/20 sand:
 21 bags

 100# bags 8/14 sand:
 1 bags

 100# bags 8/20 sand:
 14 bags

94# bags cement: 230 bags

5 gal. buckets bentonite: 3 buckets

50# bentonite powder: 13 bags

<u>Surface Casing:</u>

94# bags cement: 100 bags

50# bags bentonite powder: 11 bags

Pertinent Field Notes:

2/9/88	Mobilize to site, drill 0'-100' with 8 $3/4$ " bit, ream 0'-35' 14
2/10/00	3/4" bit, 900 gallons used Kaszuba
2/10/88	Ream 35'-85' 14 3/4" bit, 1700 gallons water used Kaszuba
2/11/88	Ream 85'-90', set 10"x 89' steel surface casing, grout to surface
	with 100 bags cement mixed with 11 bags bentonite gel Kaszuba
2/17/88	Drill 100'-262' 9 7/8" bit, compressor broke down, take to shop
	for repairs, ~ 1500 gallons used Kaszuba
2/18/88	Bring in new compressor (Ingersoll/Rand) from 150 Area, pump
	excess water from mudpit, drill 262'-368' 9 7/8" bit, 1000
	gallons water used Cooper
2/19/88	Larjon down for repairs to compressor
2/20/88	Drill 368'-508' 9 7/8" bit, monitor filters on main canister,
	1800 gallons water used Cooper
2/21/88	Put D. Pearson of S.W. Surveys on standby to drill deeper due to
	small water column, water level 464', drill 508'-568' 9 7/8" bit,
	900 gallons water used, total water pumped out of mudpit to date
	is 7000 gallons Cooper
2/22/88	Geophysical logging by D. Pearson of S.W. Surveys, Larjon got
_//	casing to complete well, took unofficial samples in open borehole
	for 8010 and Freon TF, bottom filler sand added
2/23/88	Bottom bentonite plug put in, ran 4"x533' stainless steel casing,
2/23/00	
	add 8/20 around screen interval, small compressor blew seal and
0 /01 /00	leaked hydraulic fluid on ground and was shoveled onto plastic
2/24/88	Upper bentonite plug installed and 100 bags cement used to grout
2/25/88	Added grout 50 bags cement with 5 bags bentonite gel
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Developed well, bailed 33 gallons, pumped 985 gallons, see well development sheet for details
Added grout 80 bags cement with 8 bags bentonite gel, set brass 2/26/88

3/3/88

cap